Oil Field Environmental Incident Summary

Incident: 20141009165949 **Date/Time of Notice:** 10/09/2014 16:59
Responsible Party: Oasis Petroleum
Well Operator: OASIS PETROLEUM NORTH AMERICA LLC
Well Name: SCHMITZ 44-30H
Field Name: CAMP **Well File #:** 15879
Date Incident: **10/8/2014** **Time Incident:** 00:14 **Facility ID Number:**
County: MCKENZIE **Twp:** 152 **Rng:** 100 **Sec:** 30 **Qtr:** SE SE
Location Description:

Submitted By: Dan Grafton **Received By:**

Contact Person: Dustin Anderson Grafton
1001 FANNIN STE 1500
HOUSTON, TX 77002

General Land Use: Well/Facility Site **Affected Medium:** Topsoil

Distance Nearest Occupied Building:
Distance Nearest Water Well:
Type of Incident: Pipeline Leak
Release Contained in Dike: No **Reported to NRC:** No

	Spilled	Units	Recovered	Units	Followup	Units
Oil						
Brine	1000	Barrels	300	Barrels		
Other						

Description of Other Released Contaminant:
Production water

Inspected: **Written Report Received:** **Clean Up Concluded:**

Risk Evaluation:
Low

Areal Extent:

Potential Environmental Impacts:
Medium

Action Taken or Planned:
Removal of dirt and chemical treatment of effected area

Wastes Disposal Location: Secure disposal

Agencies Involved:

Updates

Date: 10/9/2014 ***Status:*** Inspection ***Author:*** Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:
Arrived on location at approximately 13:00 10/9/2014.

Large spill originated on location and spilled outward, covering the well pad and impacting the surrounding areas including a small pool and riffle stream. Chloride test strips confirmed impact to a large pool (see notes) that contains fish, amphibians and water insects.

Work had begun by the company to remove the topmost layer of impacted soil with the use of earthmoving equipment.

More followup is necessary to ensure proper cleanup.

Samples collected.
Photos taken.

Date: 10/9/2014 ***Status:*** Inspection ***Author:*** Kangas, Kathleen

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:
Site was inspected, and impact to creek was verified through specific conductivity and chloride titration strips. Water impact site reading 11.80mS/cm. High range Chloride strip registered 3,151ppm at impact site. Excavation of soil on slope is currently occurring. Spoke to company representative and oil and gas representative and took samples from point of impact, upstream, and downstream. More followup is required.

Date: 10/9/2014 ***Status:*** Reviewed - Follow-up Required ***Author:*** Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Release of production water ran off location and down a grassed ravine to a stream, apparently a tributary to Timber Creek. NDDoH and NDIC inspectors have been on scene, and sampling has begun. Company is responding with excavation and planned amendment to treat the soil. Followup will continue.

Date: 10/15/2014 ***Status:*** Inspection ***Author:*** Martin, Russell

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

10/15/2104 at 14:48, on location. Personnel on site currently performing cleanup work. Walked to east-west oriented pool in creek ~1000 ft due south of wellpad and tested with water probe for electrical conductivity.
Station 1 (at eastern edge of pool where creek begins to restrict and turns north toward the wellpad): 5.13 mS at surface, 5.06 mS below surface (probe fully below the surface ~3 in).
Station 2: (west of Station 1, along north bank of pool, halfway along extent of pool, next to pink flag and surveying stake): 5.02 mS at surface, 5.08 mS below surface.
Station 3: (western extent of pool, ~200 ft due west of Station 1 based on satellite images): 5.03 mS at surface, 5.14 mS below surface.

Date: 10/20/2014 ***Status:*** Inspection ***Author:*** Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

10/20/14 - 15:00 on location. Met with company representatives. Was given the event history as they understood it, and I viewed the flow path of the salt brine. Significant excavation of impacted soils had taken place below the south edge of the oil pad. Company reps said their screening techniques had indicated impacted soil to a depth of 8 feet below ground and that groundwater had been encountered there. Groundwater was determined to be significantly impacted by the salt brine as well. A drain tile and sump has been installed, and impacted groundwater (as well as the impacted creek water in the adjacent pool) has been repeatedly pumped to recovery tanks. Chloride and electrical conductivity levels have dropped considerably since recovery began but are still significantly above acceptable levels.
Groundwater gelogist from Tetra Tech was on location this date and planning the groundwater investigation, which is to begin Thursday 10/23 with a track-mounted drilling rig from Interstate Drilling out of Thompson, N.D.

Date: 10/23/2014 ***Status:*** Correspondence ***Author:*** Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Spoke by phone with company representative on location this date. Groundwater delineation investigation has begun. Driller is on location. Awaiting the work plan but have NOT delayed the investigation pending work plan approval.

Date: 11/4/2014 ***Status:*** Inspection ***Author:*** Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

11/4/14 - 09:30 on location doing followup of a 2013 dumping of hydrovac mud. Current update: Groundwater sump still in operation. Five monitoring wells installed in area around the impacted pool. Will now await installation and sampling report, along with work plan, moving forward.

Date: 3/4/2015 ***Status:*** Correspondence ***Author:*** Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Received groundwater investigation report authored by Tetra Tech. Report is under review by inspectors who have been involved. NOV draft also undergoing preparation and review. U.S. EPA Criminal Investigation Division has indicated interest in this incident as well.

Date: 6/24/2015 ***Status:*** Inspection ***Author:*** Espe, Brady

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

I arrived on location at 13:00 p.m. The weather was 70 °F, sunny, southwest wind 10-15 mph. The sumps and monitoring wells are in place along with a building for the sumps. The building is just off the southeast corner of the pad. The area coming from the west side by the tanks and going along the south side of pad is bare from the work. This area has been outlined with silt fence along with the east side building going up to the pad. The bare soil area has been eroding. The silt fence has been knocked down and soil has eroded to the creek bank just east of the middle sump. The silt fence is also torn by the southeast corner of building. There is a small line of vegetation that is impacted in this area. The vegetation is growing along the creek; there is still some boom southwest of the wells and sumps within the creek next to reeds. There is still an open trench form the edge of pad towards the sump building. A field measurement of creek water was - EC 5260 us/cm, Cl - <31 ppm. More follow-up needed.

Date: 9/1/2015 ***Status:*** Inspection ***Author:*** Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on site at 9:37 a.m. Weather was sunny with light wind. The flow path from the pad to the stream has been cultivated. The cultivated soil has a visible white crystal appearance to it. There is a path cut down the side of the pad, with a snow fence surrounding it from the southeast side of the well pad to the impacted area. There is vegetation growing along the creek banks. There is still boom material located in the creek bed to the southwest. Field measurements of the creek water was electroconductivity of 10.69 millisiemens (mS) and chloride of 148 parts per million.
Soil conductivity was collected. At the top of the flow path near the well pad:
3" = 4.29 mS, 9"= 2.61 mS, 12" = 3.95 mS

At the base of the flow path near the middle sump:
3"= 13.70 mS, 6" = 14.23 mS, 9" = 13.57 mS

Additional followup is needed.

Date: 5/20/2016 ***Status:*** Inspection ***Author:*** Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 14:00, 5/20/2016.

Grass is coming up through the reseeded area, and there are no signs of stress in new vegetation. A collection system has been constructed by the responsible party for remediating brine impacts to groundwater in the area.

More follow-up is necessary.

Date: 11/1/2016 ***Status:*** Inspection ***Author:*** Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 3:25, 11/1/2016.

Impacted area has thick growth of kochia. Creek has macrobiota (turtles) present, and there are only a few small remaining surficial impacts remaining.

More follow-up is necessary.